

**1 - UNIVERSITE CLAUDE BERNARD LYON I**

**2 - CNAM (Conservatoire National des Arts et Métiers)**

**METHOD FOR SEPARATING IN AN AQUEOUS MEDIUM  
LANTHANIDES AND/OR ACTINIDES BY COMBINED COMPLEXING-  
NANOFILTRATION, AND NOVEL COMPLEXING AGENTS THEREFOR**

**ABSTRACT:**

The invention relates to the separation of lanthanides and actinides by nanofiltration-complexation.

The object of the invention is to satisfy the existing need for a simple, efficient and economic technique for separating lanthanides and actinides.

This object is achieved by the process according to the invention, which consists in using ligands of the polyamino acid type, such as EDTA and DTPA, for complexing lanthanides and/or actinides before separating them by nanofiltration.

The invention further relates to novel polyamino acid ligands, with the exception of EDTA and DTPA.

Application to the production of rare earths or the processing of nuclear waste, especially that originating from the processing-recycling operations carried out on spent nuclear fuels.